UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,142	07/09/2003	Victor Menasce	08895114US1	8084
	7590 02/08/200 AFLEUR HENDERSO	EXAMINER		
Suite 2600 160 Elgin Street Ottawa, ON KIP 1C3 CANADA			KASRAIAN, ALLAHYAR	
			ART UNIT	PAPER NUMBER
			2609	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MO	NTHS	02/08/2007	. DADED	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)				
•	10/615,142	MENASCE ET AL.				
Office Action Summary	Examiner	Art Unit				
	Allahyar Kasraian	2609				
The MAILING DATE of this communication app	pears on the cover sheet wit	th the correspondence address				
Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	OATE OF THIS COMMUNIC 136(a). In no event, however, may a re- will apply and will expire SIX (6) MONT e, cause the application to become ABA	CATION. poly be timely filed THS from the mailing date of this communication. ANDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on <u>09 Ja</u>	<u>uly 2003</u> .					
2a) ☐ This action is FINAL . 2b) ☑ This	This action is FINAL . 2b)⊠ This action is non-final.					
3) Since this application is in condition for allowa	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D.	. 11, 453 O.G. 213.				
Disposition of Claims						
4)⊠ Claim(s) <u>1-11</u> is/are pending in the application	1.					
	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed						
6) ☑ Claim(s) 1-9 is/are rejected.	•					
7) ☑ Claim(s) 9-11 is/are objected to.						
8) Claim(s) are subject to restriction and/o	or election requirement.					
Application Papers						
9)⊠ The specification is objected to by the Examine	er.					
10)⊠ The drawing(s) filed on <u>07/09/2003</u> is/are: a) [d to by the Examiner.				
Applicant may not request that any objection to the	· · · · · · · · · · · · · · · · · · ·					
Replacement drawing sheet(s) including the correct						
11)☐ The oath or declaration is objected to by the Ex	xaminer. Note the attached	Office Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C. &	119(a)-(d) or (f)				
a) All b) Some * c) None of:	i priority under do d.c.c. 3	110(4) (4) 5. (1).				
1. Certified copies of the priority document	ts have been received.					
2. Certified copies of the priority document		oplication No				
3. Copies of the certified copies of the prior	rity documents have been	received in this National Stage				
application from the International Bureau	u (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list	of the certified copies not r	received.				
		•				
Attachment(s)						
1) Notice of References Cited (PTO-892)		ummary (PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08))/Mail Date formal Patent Application				
Paper No(s)/Mail Date	6) Other:					

DETAILED ACTION

Drawings

1. The drawings are objected to because:

On page 8 of the specification, the first and second lines of the last paragraph says, "Figs 7a and 7b". However, there is no figure indicated as Fig. 7a or Fig. 7b on the drawings. Examiner assumes that the top and bottom figures on Figure 7 of the drawing should be marked as --Figure 7a-- and --Figure 7b--.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 2609

Specification

Page 3

Content of Specification

- (a) <u>Title of the Invention</u>: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) <u>Cross-References to Related Applications</u>: See 37 CFR 1.78 and MPEP § 201.11.
- (c) <u>Statement Regarding Federally Sponsored Research and Development:</u> See MPEP § 310.
- (d) <u>The Names Of The Parties To A Joint Research Agreement</u>: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc:
 The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) <u>Background of the Invention</u>: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) <u>Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98</u>: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are

Art Unit: 2609

Page 4

solved by the applicant's invention. This item may also be titled "Background Art."

- g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) <u>Brief Description of the Several Views of the Drawing(s)</u>: See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if

Art Unit: 2609

an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Page 5

- (I) <u>Sequence Listing.</u> See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.
- 2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are:
 - a. On page 6 and lines 3 and 5 of the first paragraph, the word --are-- is missing before "connected"
 - b. On page 6 and lines 5-7 of the first paragraph, the examiner interprets the last sentence as "Figure 3 shows a portion of a network 3 comprising a switch 50 connecting two 8-bit busses 60 and 70 which both together could connect to a 16-bit bus 80."
- 3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Application/Control Number: 10/615,142 Page 6

Art Unit: 2609

Claim Objections

- 4. Claims 9-11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims has not been further treated on the merits.
- 5. Claim 3 is objected to because of the following informalities:
 - a. On line 2 of the claim 3, insert --,-- after the first "fabric".
 - b. On line 6 of the claim 3, replace "Said" with --said-- before "method".
 Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the switching fabric" in line 1 of the claim 4.

There is insufficient antecedent basis for this limitation in the claim.

Claims 5-10 are also rejected by virtue of their dependency on claim 4.

Art Unit: 2609

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Akyol et al. (U.S. Pub. # 2002/091547).

Consider **claim 1**, Akyol et al. clearly shows and discloses a port (see bi-directional arrows in Fig. 1 and lines 6-8 of paragraph 0024 where it says, "Each line card has a plurality of ports through which data is sent and received...") for connecting to a switching fabric having a plurality signal resources dividable into at least a first resource subset (lines 4-5 of paragraph 0053, Update process (ACTIVE)) and second resources subset (line 5 of paragraph 0053, the Decision process (SPF)), said port configurable in a plurality of configurations and said port comprising:

A first interface (Fig. 4 card 401 and lines 4-5 of paragraph 0053) operable whereby said port is in a first configuration, and said first interface (Fig. 4 card 401 and lines 4-5 of paragraph 0053) incorporating said first resources subset (lines 4-5 of paragraph 0053, card 401 executes Update process (ACTIVE))

Art Unit: 2609

Said first interface not incorporating said second resource subset,

a second interface (Fig. 4 card 405, and line 6 of paragraph 0053) operable whereby said port is in a second configuration,

said second interface (Fig. 4 card 405, and line 6 of paragraph 0053) incorporating (see lines 6-7 of paragraph 0053 where it says, "...card 405 is a redundant card acting as BACKUP for either or both of cards 401 and 403.") said first resource subset (lines 4-5 of paragraph 0053, Update process (ACTIVE)) and second resource subset (line 5 of paragraph 0053, the Decision process (SPF))

a third interface (Fig. 4 card 403, and line 6 of paragraph 0053) operable whereby said port is in a third configuration,

said third interface (Fig. 4 card 403) incorporating said second resource subset and, said third interface not incorporating said first resource subset. (See line 5 of paragraph 0053, where it says, "card 403 executes the Decision process (SPF)...")

Consider claim 2, and as applied to claim 1 above, Akyol et al. clearly shows and discloses the port of claim 1, for co-operating with a core (line 1 of paragraph 0058, a system), and additionally comprising a switching circuit wherein said switching circuit is controlled by the core (line 1 of paragraph 0058, a system) and capable of coupling either said first, second, or third interface to said core. (see paragraph 0058, where it says, "... a system is provided for monitoring of performance of cards involved in distributed protocol processing and backup, and for switching available cards into and out of active states as required.)

Art Unit: 2609

Claims 3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Gronke (U.S. Pub. # 2002/0071386 A1).

Consider **claim 3**, Gronke clearly shows and discloses a method of fault tolerance in a network (lines 3-6 of paragraph 002) having a primary fabric (FIG. 6, FABRIC B) a replacement fabric (FIG.6 FABRIC A) and an endpoint (FIG. 6, NODE 1), said endpoint (FIG. 6, NODE 1) including a port (FIG. 6 local ports P₁ and P_N) having a plurality signal resources dividable into at least a first resource subset (see description of "channel context" in paragraph 0040, and lines 10-13 of paragraph 0044) and a second resource subset ("a new context" in line 5 of paragraph 0041),

said port configurable (FIG. 7, VIRTUAL_TO PHYSICAL PORT MAP, and lines 1-3 of paragraph 0045) in a plurality of configurations

said method comprising the steps:

configuring the port (see lines 7-8 of paragraph 0045, where it says, "... a port mapper would then assign a physical port (PP_N) to the virtual port (VP_N) for the channel.") as a first interface (FIG. 6, local port P_N) incorporating the first resource subset (see description of "channel context" in paragraph 0040, and lines 10-13 of paragraph 0044) detecting a failure of communication at said endpoint, notifying said primary fabric to terminate communications, notifying said replacement fabric to initiate communications, terminating communications at said first interface (see lines 1-5 of paragraph 0041), configuring the port as a second interface incorporating the second resource subset and initiating communications at said second interface (see lines 11-17

Art Unit: 2609

of paragraph 0045). (Gronke clearly describes the method from paragraphs 0041 to 0045.)

Consider claim 4, and as applied to claim 3 above, Gronke clearly shows and discloses the switching fabric comprises a first (FIG.6 FABRIC B) and second (FIG. 6, FABRIC A) fabric.

Consider **claim 5**, and **as applied to claim 4 above**, Gronke clearly shows and discloses the first fabric is a primary fabric (FIG.6 FABRIC B)

Consider claim 6, and as applied to claim 5 above, Gronke clearly shows and discloses the second fabric is a replacement fabric (FIG.6 FABRIC A)

Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Application/Control Number: 10/615,142 Page 11

Art Unit: 2609

1. Determining the scope and contents of the prior art.

- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gronke (U.S. Pub. # 2002/0071386 A1).

Consider claim 7 and 8, and as applied to claim 6 above, Gronke discloses the claim invention expect the replacement fabric comprises either a cold or hot standby fabric.

Nonetheless, the Examiner takes Official Notice that it is notoriously well known in the art to utilize cold or hot standby fabric as a replacement fabric for purpose of using an alternate fabric when an endpoint (or node) detects a failure or error from the primary fabric.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the cold or hot standby fabric as a replacement fabric in the method thought by Gronke for purpose of switching from a primary fabric to a replacement fabric when an endpoint detects a failure in a communication path.

Conclusion

 The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Application/Control Number: 10/615,142 Page 12

Art Unit: 2609

a. Cantwell (U.S. Patent # 6,895,528 B2) discloses Method and Apparatus for Imparting fault Tolerance in a Switch or the Like

- b. Harris et al. (U.S. Patent Application Publication # 2003/0236920 A1)
 discloses Multi-Service Platform System and Method
- 10. Any response to this Office Action should be **faxed to** (571) 273-8300 **or** mailed to:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Allahyar Kasraian whose telephone number is (571) 270-1772. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2609

Information regarding the status of an application may be obtained from the

Page 13

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

Allahyar Kasraian

AK/ak

February 2, 2007

RAFAEL PEREZ-GUTIERREZ

SUPERVISORY PATENT EXAMINER

2/407